

## CLAIMS

What is claimed is:

1. A supplement for treatment of symptoms of Alzheimer's disease, dementia, depression, and combination thereof, comprising:
  - 5 a. from about 20 wt% to about 70 wt% emu oil, wherein the emu oil further comprises from about 1 wt% to about 12 wt% linolenic acid;
  - b. from about 5 wt% to about 30 wt% L-arginine;
  - c. from about 5 wt% to about 30 wt% pyroglutamate;
  - d. from about 0.5 wt% to about 20 wt% B-12 methylcobalamin; and
  - 10 e. from about 0.5 wt% to about 20 wt% calcium, wherein the supplement is adapted for crossing a blood brain barrier, and for fortification of phospholipids in neurotransmitters of a brain to increase cell proliferation for treatment of symptoms of Alzheimer's disease, dementia, depression, and combinations thereof.
- 15 2. The supplement of claim 1, further comprising an additional up to 10 wt% linolenic acid.
3. The supplement of claim 1, further comprising an additional 0.5 to 20 wt% Vitamin E.
4. The supplement of claim 1, further comprising an additional 0.5 to 20 wt% Vitamin C.
5. The supplement of claim 1, wherein the supplement is adapted to reduce serum cholesterol levels in the patient.
- 20 6. The supplement of claim 1, wherein the supplement is ingestible.
7. The supplement of claim 1, wherein the supplement is administered to the patient by a transdermal delivery system.

8. The supplement of claim 1, further wherein said supplement is applied to mucous membranes.
9. The supplement of claim 8, further comprising using an at least partially adhesive elastomeric patch with the supplement to place the supplement on the skin.
- 5 10. The supplement of claim 8, wherein said supplement is topically applied.
11. The supplement of claim 1, wherein said supplement is adapted to act on manic depressive disorder.
12. A method for treatment of symptoms of Alzheimer's disease, dementia, manic depression, bi-polar disease and combinations thereof, comprising the steps of:
  - 10 a. preparing a supplement comprising:
    - i. from about 20 wt% to about 70 wt% emu oil, wherein the emu oil further comprises from about 1 wt% to about 12 wt% linolenic acid;
    - ii. from about 5 wt% to about 30 wt% l-arginine;
    - iii. from about 5 wt% to about 30 wt% pyroglutamate;
    - 15 iv. from about 0.5 wt% to about 20 wt% B-12 methylcobalamin; and
    - v. from about 0.5 wt% to about 20 wt% calcium;
  - b. administering the supplement to a patient, wherein the supplement is adapted for crossing a blood brain barrier, and for fortification of phospholipids in neurotransmitters of a brain to increase cell proliferation for treatment of  
20 symptoms of Alzheimer's disease, dementia, depression, and combinations thereof..
13. The method of claim 12, further comprising adding as an additional component up to 10 wt% linolenic acid.

14. The method of claim 12, further comprising adding as an additional component between 0.5 to 20 wt% Vitamin E.
15. The method of claim 12, further comprising adding as an additional component between 0.5 to 20 wt% Vitamin C.
- 5 16. The method of claim 12, further comprising the step of using the supplement as an ingestible dosage.
17. The method of claim 12, wherein the supplement is administered to the patient by a transdermal delivery system.
18. The method of claim 17, wherein the supplement is adapted for application to mucous  
10 membranes.
19. The method of claim 17, wherein a partially adhesive elastomeric patch is used to place the supplement on the skin.
20. The method of claim 12, wherein said supplement is additionally used to reduce the LDL serum cholesterol levels in a patient.
- 15 21. A method for treating inflammation of brain tissue associated with Alzheimer's disease, dementia, depression, and combinations thereof, comprising the steps of:
- a. preparing a supplement comprising:
- i. from about 20 wt% to about 70 wt% emu oil, wherein the emu oil further comprises from about 1 wt% to about 12 wt% linolenic acid;
- 20 ii. from about 5 wt% to about 30 wt% l-arginine;
- iii. from about 5 wt% to about 30 wt% pyroglutamate;
- iv. from about 0.5 wt% to about 20 wt% B-12 methylcobalamin; and
- v. from about 0.5 wt% to about 20 wt% calcium;

- b. administering the supplement to a patient, wherein the supplement is adapted for crossing a blood brain barrier, reduces inflammation of brain tissue and fortifies phospholipids in neurotransmitters to increase cell proliferation for treatment of symptoms of Alzheimer's disease, dementia, depression, and combinations thereof.

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22. The method of claim 21, further comprising adding as an additional component up to 10 wt% linolenic acid.

23. The method of claim 21, further comprising adding as an additional component between 0.5 to 20 wt% Vitamin E.

10 24. The method of claim 21, further comprising adding as an additional component between 0.5 to 20 wt% Vitamin C.

25. The method of claim 21, further comprising the step of using the supplement as an ingestible dosage.

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26. The method of claim 21, wherein administering the supplement is by a transdermal delivery system.

27. The method of claim 21, wherein administering the supplement is by application to mucous membranes.

28. The method of claim 21, wherein administering the supplement is by using an at least partially adhesive elastomeric patch is used to place the supplement on the skin.

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